

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/535,416  
Source: PCT  
Date Processed by STIC: 5-25-05

# ***ENTERED***



PCT

## RAW SEQUENCE LISTING

DATE: 05/25/2005

PATENT APPLICATION: US/10/535,416

TIME: 12:11:41

Input Set : A:\Q87778.ST25.txt

Output Set: N:\CRF4\05252005\J535416.raw

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3 <110> APPLICANT: RIBAS, Jaume PINOL
4   VIRGILI, Sergi BRU
5   MASO, Enric ESPUNA
6   MURILLO, Enrique QUEROL
8 <120> TITLE OF INVENTION: Live Attenuated Vaccine Against Porcine Pleuropneumonia
10 <130> FILE REFERENCE: Q87778
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/535,416
13 <141> CURRENT FILING DATE: 2005-05-19
15 <150> PRIOR APPLICATION NUMBER: PCT/EP2003/012839
16 <151> PRIOR FILING DATE: 2003-11-17
18 <150> PRIOR APPLICATION NUMBER: ES P 200202663
19 <151> PRIOR FILING DATE: 2002-11-20
21 <160> NUMBER OF SEQ ID NOS: 18
23 <170> SOFTWARE: PatentIn version 3.3
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 3072
27 <212> TYPE: DNA
28 <213> ORGANISM: Actinobacillus pleuropneumoniae
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35 gcagggcaga aattaatttt atatattccg aaagattatc aagctagtac cggctcaagt      180
37 cttaatgatt tagtgaaagc ggccggaggct ttagggatcg aagtacatcg ctcggaaaaa      240
39 aacggtaccg cactagcgaa agaattattc ggtacaacgg aaaaactatt aggtttctcg      300
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43 ttaagtaaat cgctcggcgg ttcacgcgaa gcattaggac aacgtttaaa taaaacgcaa      420
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55 gtatcaggta tcttatctgt tgtttcggct tcattcattt taagtaataa agatgccgat      780
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63 aatggtgcgg ataagtttga acgtgcgaaa cagcttgaa aatattcgga gcgctttaa      1020
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69 gctgcaaccg gctcattagt cgggtgcgccg gtagcagctt tagttagtgc aatcaccggg      1200
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73 ttagcgaata agattgacga atgggagaaa aaacacggta aaaactattt tgaaaacggg      1320
75 tatgacgcc gccattccgc attcttagaa gatacctttg aattgttatc acaatacaat      1380
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83 tttgatccgc ttgaaggtaa aatcgacctt tcttcaatta acaaaaccac tttattgaaa 1620
85 tttgttacgc cggctctttac cgcagggtgaa gagattcgtg agcgtaaagca aaccggtaaa 1680
87 taccaatata tgaccgaatt attcggtaaa ggtaaagaaa aatgggtggt aaccgggtg 1740
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91 ggtgaaaaac gtcaagtgaac cattgaatct ctttgggtg agaaaaatga tcgtatatat 1860
93 ctttcatccg gttcatctat cgtatatgcg ggtaacggac atgatgtagc atattacgat 1920
95 aaaaccgata caggttactt aacatttgac ggacaaagtg cacagaaagc cgggtgaatat 1980
97 attgtcacta aagaacttaa agctgatgta aaagttttaa aagaagtggg taaaactcag 2040
99 gatatttcag ttggaaaaac gtgcagtgaa aaattagaat atcgtgatta tgagttaagc 2100
101 ccattcgaac ttgggaacgg tatcagagct aaagatgaat tacattctgt tgaagaaatt 2160
103 atcggtagta atcgtaaaga caaattcttt ggtagtcgct ttaccgatat tttccatggt 2220
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123 caaaataata aaattgaaaa aatcgttgat aaagatggag cttatgtttt aagccaatat 2820
125 ctgactgaac tgacagctcc tgggaagagg atcaattact ttaatgggtt agaagaaaaa 2880
127 ttgtattatg gagaaggata taatgcactt cctcaactca gaaaagatat tgaacaaatc 2940
129 atttcatcta cgggtgcatt taccgggtgat caccgaaaag tatctgtagg ctcaggcgga 3000
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133 caagcagctt aa 3072
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137 <211> LENGTH: 2871
138 <212> TYPE: DNA
139 <213> ORGANISM: Actinobacillus pleuropneumoniae
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148 caaggaaatg gagttcaaga tttagttaaa gctgctaatt atttaggtat tgaagtatgg 240
150 cgagaagaac gcagcaattt ggacattgca aaaactagct ttgatacaac tcagaaaatt 300
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154 aagaatccta aaattggcaa tacattagga agtgccttcta gcatctcaca aaatataggt 420
156 aaagccaata ctgtattagg tggattcaa tctatttttag gatctgtttt atctggagta 480
158 aatctgaatg aattacttca aaataaagat cctaatacat tagaacttgc aaaagcaggg 540
160 ctagaactga ctaatgaatt agttggtaat attgctagct cggtgcaaac tgtagatgca 600
162 tttgcagaac aaatatctaa actaggttca catttacaga atgtgaaagg attaggagga 660
164 ttgagtaata aattacaaaa tctaccagat ctaggaaaag caagttagg tttggacatt 720
166 atctctggtt tactttctgg agcatctgca ggtctcattt tagcagataa agaggcttca 780
168 acagaaaaga aagctgccgc aggtgtagaa tttgctaacc aaattatagg taatgtaaca 840
170 aaagcggctc catcttacat tcttgcccaa cgagtcgctt caggtttgct ttcaactggt 900
172 cctgtcgtcg cattaatcgc atctacagtt gcactagctg ttagccctct ttcattctta 960

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178 gatgcttctg taacaacaat taacactgct ttagcagcta tctccggtgg agttggagct 1140
180 gcaagcgcgg gttctctagt cggagctcca gttgcgttac tcgttgctgg tggtacggga 1200
182 cttattacaa ctattctaga atattctaaa caagccatgt ttgaacatgt tgcaaataag 1260
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188 aaagaacttc aggtgaacg cgtagtagct attacccaac aaagatggga taaccaaat 1440
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192 gatgcttttg aggaggggca acaccagtcc tacgattcat ccgtacagct agataacaaa 1560
194 aacggtatta ttaataattag taatacaaat agaaagacac aaagtgtttt attcagaact 1620
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202 aacattatag aatctaaaga tactaaaatt atcgcaaatt taggtgctgg taacgataat 1860
204 gtatttggtg ggtcaagtac taccgttatt gatggcgggg acggacatga tcgagttcac 1920
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208 tcatattcag taaaacgcta tgtcggagac agtaaagcat tacatgaaac aattgccacc 2040
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212 tttcactactg gttatactgt gacggactca ctcaaactag ttgaagagat cattgggttca 2160
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228 gaccgaaaaa ttgaggaaat tattggtaaa ggaggagaac gtattacatc agaacaagtt 2640
230 gataaaactga ttaaggaggg taacaatcaa atctctgcag aagcattatc caaagttgtg 2700
232 aatgattaca atacgagtaa agatagacag aacgtatcta atagcttagc aaaattgatt 2760
234 tcttcagtcg ggagctttac gtcttcctca gacttttagga ataatttagg aacatatggt 2820
236 ccttcatcaa tagatgtctc gaataatatt caattagcta gagccgctta a 2871
239 <210> SEQ ID NO: 3
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241 <212> TYPE: DNA
242 <213> ORGANISM: Artificial Sequence
244 <220> FEATURE:
245 <223> OTHER INFORMATION: Chemically-Synthesized PCR Primer
247 <400> SEQUENCE: 3
248 gatcgaattc aggatatcac agatct 26
251 <210> SEQ ID NO: 4
252 <211> LENGTH: 26
253 <212> TYPE: DNA
254 <213> ORGANISM: Artificial Sequence
256 <220> FEATURE:
257 <223> OTHER INFORMATION: Chemically-Synthesized PCR Primer
259 <400> SEQUENCE: 4
260 aattagatct gtgatatcgt gaattc 26
263 <210> SEQ ID NO: 5

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Input Set : A:\Q87778.ST25.txt

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264 <211> LENGTH: 23
265 <212> TYPE: DNA
266 <213> ORGANISM: Artificial Sequence
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269 <223> OTHER INFORMATION: Chemically-Synthesized PCR Primer
271 <400> SEQUENCE: 5
272 gaattcaatg cttctggcgt cag                                     23
275 <210> SEQ ID NO: 6
276 <211> LENGTH: 24
277 <212> TYPE: DNA
278 <213> ORGANISM: Artificial Sequence
280 <220> FEATURE:
281 <223> OTHER INFORMATION: Chemically-Synthesized PCR Primer
283 <400> SEQUENCE: 6
284 ggtaccggat gagataagat tttc                                     24
287 <210> SEQ ID NO: 7
288 <211> LENGTH: 24
289 <212> TYPE: DNA
290 <213> ORGANISM: Artificial Sequence
292 <220> FEATURE:
293 <223> OTHER INFORMATION: Chemically-Synthesized PCR Primer
295 <400> SEQUENCE: 7
296 ggtaccggat gagataagat tttc                                     24
299 <210> SEQ ID NO: 8
300 <211> LENGTH: 24
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304 <220> FEATURE:
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307 <400> SEQUENCE: 8
308 gaattcaaga gtttgtagaa acgc                                     24
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312 <211> LENGTH: 23
313 <212> TYPE: DNA
314 <213> ORGANISM: Artificial Sequence
316 <220> FEATURE:
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319 <400> SEQUENCE: 9
320 ggtacctaat ttaccaaacac tac                                     23
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324 <211> LENGTH: 24
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326 <213> ORGANISM: Artificial Sequence
328 <220> FEATURE:
329 <223> OTHER INFORMATION: Chemically-Synthesized PCR Primer
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332 ggtaccttat ttgtagagct catc                                     24
335 <210> SEQ ID NO: 11
336 <211> LENGTH: 31

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337 <212> TYPE: DNA
338 <213> ORGANISM: Artificial Sequence
340 <220> FEATURE:
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343 <400> SEQUENCE: 11
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364 <220> FEATURE:
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367 <400> SEQUENCE: 13
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376 <220> FEATURE:
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379 <400> SEQUENCE: 14
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385 <212> TYPE: DNA
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389 <223> OTHER INFORMATION: Chemically-Synthesized PCR Primer
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398 <213> ORGANISM: Artificial Sequence
400 <220> FEATURE:
401 <223> OTHER INFORMATION: Chemically-Synthesized PCR Primer
403 <400> SEQUENCE: 16
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409 <212> TYPE: DNA

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RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 05/25/2005  
PATENT APPLICATION:    US/10/535,416      TIME: 12:11:42

Input Set : A:\Q87778.ST25.txt  
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Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,  
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:17

**VERIFICATION SUMMARY**

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Input Set : A:\Q87778.ST25.txt

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L:12 M:270 C: Current Application Number differs, Replaced Current Application Number